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ABSTRACT

The perceptions of southern Nevada employers regarding the importance of the Secretary's Commission for Achieving Necessary Skills (SCANS) workplace basic skills were examined in a survey that was administered to a random sample of southern Nevada businesses. Of the 415 employers who completed the survey, 313 (75.4%) believed that the SCANS skills adequately identified necessary skills for entry-level employment. The percentages of employers who believed that the SCANS skills adequately identified necessary skills in selected specific skill areas were as follows: resource competencies, 60%; interpersonal competencies, 91.6%; information competencies, 86.5%; systems competencies, 52.8%; technology competencies, 54.5%; basic skills, 95.9%; thinking skills, 92.8%; and personal quality skills, 96.1%. Employers were also asked whether their current employees possess the SCANS skills and competencies. An analysis of the results revealed the following levels of disparity between entry employees' need for and possession of SCANS skills in selected areas: thinking skills, 32.8%; personal quality skills, 30.1%; basic skills, 27.5%; interpersonal competencies, 26.5%; information competencies, 23.4%; technology competencies, 16.7%; systems competencies, 11.8%; and resource competencies, 6.5%. Approximately 80% of responding firms considered SCANS skills and competencies among entry-level employees very important to/necessary to their firm's productivity and profitability. (Contains 20 references.) (MN)

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Perceptions of Southern Nevada Employers Regarding the Importance of SCANS Workplace Basic Skills

by

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Introduction

Identifying appropriate workplace basic skills is critical to the development of training and workforce educational programs for the next century. However, it is almost impossible to develop proper workplace basic skills training and applicable workplace education programs without an essential identification, definition, and agreement of the relative skills in question (Darrah, 1991). Cappelli et al., (1997) explained that without knowing what employers expect from applicants, it is difficult to know whether complaints are more, or possibly less significant than those at other times (p. 157). "How can educators prepare young people for the workplace" insisted Joyce and Voytek, (1996) "when employers can't agree on the skills they want workers to possess?" (p. 31). Until we begin to determine more precisely what skills are important in the workplace, the issue will continue to remain largely misunderstood (Hull, 1995).

Perhaps the most extensive attempt to date involving the identification of a set of workplace basic skills included the activity of the Secretary's Commission on Achieving Necessary Skills (SCANS, 1991) established by then United States Secretary of Labor, Elizabeth Dole. The SCANS Commission, composed of 30 representatives of education, business, labor, and state government was charged with defining a common core of skills that constitute job readiness in the current economic environment. Specifically, the SCANS report defined the basic skills needed for employment by identifying five workforce competencies and three foundation skills necessary for effective work. .

The three SCANS foundation skills include:

- ***Basic skills***--reading, writing, speaking, listening, & knowing arithmetic & mathematical concepts;
- ***Thinking skills***--reasoning, making decisions, thinking creatively, solving problems, & knowing how to learn; and
- ***Personal qualities***--responsibility, self-esteem, sociability, self-management, integrity, honesty.

The five SCANS competencies include:

- ***Resources***-- time, money, material and facilities, and human resources.
- ***Interpersonal***-- team participation, customer/client service, leadership, negotiation, and diversity.
- ***Information***--information evaluation, maintenance, interpretation and processing.
- ***Systems*** -- systems understanding, development, monitoring, correction, and improvement.
- ***Technology***-- technology selection, application, equipment maintenance and troubleshooting.

Despite some disagreement over the relevance of these skills (Samuelson, 1991), the SCANS report remains a recognized national benchmark by which most workplace basic skills are defined. However, questions still remain with respect to whether the various workplace basic skills identified in the national SCANS report are truly necessary for successful entry-level employment. Are the skills and competencies identified in the SCANS report necessarily representative of the skills businesses in southern Nevada require for their entry-level workers? This was the major research question the University of Nevada Las Vegas' School-to-Careers Professional Development Center (STCPDC) had before recently seeking an answer.

Methodology

Beginning in December of 1998 and ending in February of this year, the STCPDC at UNLV completed a research project that described the perceptions of southern Nevada employers regarding the importance of the workplace basic skills and competencies identified by the SCANS Commission. A random sample of southern Nevada businesses was selected from a database provided by the UNLV Center for Business and Economic Research. The database categorized employers based upon standard industrial classification (SIC) and size of business in terms of the number of employees each business possessed. Each randomly selected business was sent a survey questionnaire and asked to respond to a number of questions regarding the importance of SCANS skills relative to entry-level employment. Over 400 responses to the questionnaire were received and analyzed by researchers at the UNLV STC Professional Development Center.

Results

Based upon the formal definition of SCANS skills provided in the questionnaire, the study essentially revealed that over 75 percent of Southern Nevada business respondents considered SCANS as adequately identifying competencies and skills needed for entry-level employment in their organization (see figure 2). Although this gave us a general idea that the perception by southern

Figure 1. Do SCANS adequately identify necessary skills for entry-level employment?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		6	1.4	1.4	1.4
	No	96	23.1	23.1	24.6
	Yes	313	75.4	75.4	100.0
	Total	415	100.0	100.0	

Although Nevada employer perceptions favored SCANS skills in general, it was essential to determine which SCANS skills and competencies employers identified as more important. Consequently, based upon the definition of SCANS skills and competencies provided in the questionnaire, respondents were asked to identify which specific skill and competency adequately identified what was needed for entry-level employment in their respective organization (see figure 2).

Figure 2. Breakdown of SCANS competencies and skills that adequately **identify** the competencies and skills needed for entry-level employment.

Competency or Skill	Yes	Percent	No	Percent	Frequency
SCANS Resource Competencies	249	60%	158	38.3%	407
SCANS Interpersonal Competencies	380	91.6%	34	8.2%	414
SCANS Information Competencies	359	86.5%	52	12.5%	411
SCANS Systems Competencies	219	52.8%	188	45.3%	417
SCANS Technology Competencies	226	54.5%	181	43.6%	414
SCANS Basic Skills	398	95.9%	16	3.9%	414
SCANS Thinking Skills	385	92.8%	23	5.5%	408
SCANS Personal Quality Skills	399	96.1%	12	2.9%	411

After analyzing the data, it was clear that resource and systems competencies ranked lower in relative importance than the other SCANS skills and competencies. This may be due to the somewhat esoteric nature of the definition of these competencies. However, we were very surprised to see technology competencies rank lower in terms of percentage than most of the others. We believe this may be because we limited our scope to entry-level employment rather than higher-level jobs, which may have less of a technology emphasis. However, the literature clearly indicates that technology competencies will rise in demand, even with entry-level employment, as we move into the next century (Cappelli, et.al, 1997, Hunt, 1995).

Although somewhat expected, we also found most responding employers perceived that their entry-level employees do not sufficiently possess SCANS skills and competencies. We felt it was important to subsequently analyze the difference between what employers perceive as important SCANS skills for entry-level employment verses what employers perceive their employees as currently possessing (see figure 3).

Figure 3. Difference between the importance and actual possession of SCAN skills.

Competency or Skill	Adequately Identify	Sufficiently Possess	Difference
Resource Competencies	60%	53.5%	6.5%
Interpersonal Competencies	91.6%	ø5.1%	26.5%
Information Competencies	86.5%	63.1%	23.4%
Systems Competencies	52.8%	41.0%	11.8%
Technology Competencies	54.5%	37.8%	16.7%
Basic Skills	95.9%	68.4%	27.5%
Thinking Skills	92.8%	60.0%	32.8%
Personal Quality Skills	96.1%	66.0%	30.1%

An examination of this particular data revealed that one of the most important differences between the specific SCANS skills employers regarded as needed verses those skills employers viewed entry-level employees as currently possessing was thinking skills. As defined by SCANS, thinking skills include abilities such as creative thinking, decision-making, problem solving, reasoning, seeing-things-in-the-minds-eye, and knowing how to learn (SCANS, 1991). The study showed that 92.8% of respondents viewed SCANS thinking skills as necessary for entry-level employment, but only 60% of them regarded their entry-level employees as sufficiently possessing those skills.

Other notable disparities existed among SCANS personal quality skills, SCANS basic skills, and SCANS interpersonal competencies. The SCANS report defined personal quality skills as responsibility, self-esteem, sociability, self-management, integrity, and honesty. SCANS also defined basic skills as reading, writing, mathematics, listening, and speaking. Interpersonal skills have been defined by SCANS as team participation, teaching others new skills, exercising leadership, negotiation, and working with diversity. With this in mind, the study determined that a 30.1% disparity existed between the need and the possession of SCANS personal quality skills. Similarly, an observable 27.5% difference existed with basic skills and a 26.5% disparity with interpersonal competencies.

The study further revealed that approximately 80 percent of responding firms considered SCANS skills and competencies among their entry-level employees as very important-to-necessary to both their firm's productivity and profitability. We left the definition of profitability and productivity up to the respondent. Nevertheless, it was clear that the majority of respondents essentially considered SCANS skills and competencies among their employees as an integral component to their profitability and productivity.

We were also interested in whether size of business in terms of the number of employees effected the perceptions of southern Nevada businesses regarding the importance of SCANS skills. After completing a statistical test of analysis of variance (ANOVA), we were surprised to see that a statistically significant difference in mean scores did not exist among Nevada employers based upon size of business ($F(df\ 5, 408) = 1.347 < Fcv\ (2.21), P > .05.$). However, the study indicated a significant mean difference existed at the .05 level based upon standard industrial classification (SIC) of those surveyed businesses. After completing a post hoc multiple comparison test to find out where the differences were, we found notable employer variation between the retail trade and service sectors and between retail trade and the finance, insurance, and real estate sector.

By examining the mean scores of these particular business sectors for each individual SCANS skill and competency, our analysis showed the retail trade sector placed less emphasis on the importance of technology, information, and systems competencies than did the service sector. A possible explanation for this difference may include the notion that the service sector (which includes the medical and legal profession, education, engineering, accounting, and management services) has more sophisticated entry-level employment needs than does the retail trade sector. The Center for Business and Economic Research (1998) defined retail trade as "food stores...eating and drinking places... gasoline service stations" and "other miscellaneous retail stores" (p. vii). Technology, information, and systems competencies are generally viewed as a more complex set of skills and may be less appropriate for entry-level employment in the retail trade sector. Hunt (1995) pointed out that some writers argue retail jobs are becoming "deskilled" in the sense that tasks are becoming more automated with technology, which in turn require less thinking skill

It was further revealed that the retail trade sector placed less emphasis on information and technology competencies than did the finance, insurance, and real estate sector. We postulated the finance, insurance, and real estate sector also generally requires more sophisticated skills for entry-level employment than the retail trade sector, thus the reason for the difference. An interesting footnote to this information is that three out of the 4 fastest growing occupational groups will be executive, administrative, and managerial; professional specialty; and technicians (U.S. Department of Labor, 1994). Professional specialty occupations are projected to increase by nearly five million workers between 1996 and 2006 (Postrel, 1998). These occupations generally require the highest levels of education and skill, and will make up an increasing proportion of new jobs (U.S. Dept. of Labor, 1994). They are also "projected to make up about 36% of the total work force by 2006, or about 54 million jobs, a jump from about 30% in 1996" (Postrel, 1998, p. A5).

In the early 1990's, Brown (1990) concluded that most employee surveys revealed that 85 to 90 percent of workers never received formal training from their employer. According to a study delivered to the Senate Labor task force (Senate Labor Committee, 1990), most companies did not appear to be devoting significant financial resources to training. The Senate study said 78 percent of the firms researched used the traditional process of reimbursing employees for the cost of tuition, while just 8 percent had their own training program. Moreover, the average 1.4% of payroll that U.S. companies invested in training reached only 10% of the workforce and Japanese and European companies spent three to five times more on training than American companies (Senate Labor Committee, 1990).

But, the United States Bureau of Labor Statistics (1992) presented evidence that the number of employees whose qualifying training in schools was sponsored by their employers has more than doubled since 1983, from 2.1 million to 5.4 million in 1991. Organizations with training programs reported training an average 56 percent of their employees at a median estimated cost of $365 per trainee (Knoke and Kalleberg, 1994, p. 87). More recently, the United States Bureau of Labor Statistics (1994) and the National Center on Educational Quality of the Workforce (1995) both noted

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that 71 to 81 percent of employers now provide some type of formal training. Farrell, Palmer, and Browder (1998) also suggested that companies are continuing to devote more and more resources to worker training (p. 75). Froiland (1993) further maintained that many large employers currently offer basic and remedial education

For southern Nevada, the STCPDC study at UNLV revealed that 68.7% of southern Nevada respondents have implemented their own workplace basic training programs within their respective organizations. This seems to be consistent with the United States Bureau of Labor Statistics (1994) and the National Center on Educational Quality of the Workforce (1995) figures. Although the referenced data from these organizations do not define the type of training, both reported that 71 to 81 percent of employers provided some kind of formal training

What are the implications of this particular research for southern Nevada? Based upon the survey results, a set of workplace basic skills curriculum is in the process of being developed at the UNLV School-to-Careers Professional Development Center. The project is funded by a federal grant through the School-to-Careers Southern Nevada Regional Partnership. When finished, the curriculum will be consistent with the skills described in the national SCANS (1991) report designed to train students to acquire basic applied, work-related competencies. The curriculum will essentially be comprised of self-instructional workbooks for home or class study complemented by practical exercises and interactive applications. It is expected that the new curriculum will also be available for employer use allowing for the training of workers at job sites in a group or individual setting.

Perhaps the most significant challenge of the future workplace is the need for workers to possess adequate workplace basic skills. Indeed, the demand for workers who possess adequate skills will continue into the next century and "It's clear that poorly educated workers will continue to lose ground" (Farrell et al., 1998, p. 74). Alvin Toffler (1990) explained that "Today, in the fast-changing affluent nations, despite all the inequities of income and wealth, the coming struggle for power will increasingly turn into a struggle over the distribution of and access to knowledge" (p. 20). Herrnstein and Murray (1994) argued that there is inevitably going to be a cognitive elite. "If we do nothing, cognitive skills will be in shorter supply and greater demand" and "not increasing these skills guarantees a lowering of our place in the competitive global village" (Hunt, 1995, p. 245-246).

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